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Energy Efficiency Class Details & Registration

Program Title	Two Energy Efficiency Technologies for Cleanroom Facilities [Register]										
Time, Location	November 17 (Friday, 9:00 am to 12:00 pm) San Francisco--PEC										
Also Offered	n/a										
Description	<p>Speakers William Tschudi, David Faulkner, and Tengfang Xu of Lawrence Berkeley National Laboratory will present data from LBNL's High Tech Buildings initiative, an effort to investigate technologies and strategies to improve energy performance of cleanroom, laboratory, and data center facilities. As part of this project, two demonstrations were recently concluded highlighting two technologies for use in cleanroom and laboratory facilities. David Faulkner and Tengfang Xu, researchers involved in these demonstrations, will explain the demonstrations and their findings in this workshop.</p> <p>The first demonstration--Demand Controlled Filtration--showed how cleanroom air systems can be directly controlled by monitoring contamination levels and using other control strategies to maintain desired cleanliness while saving energy. This technology can be used in many cleanroom applications today with available equipment. The second demonstration focused on means to determine energy efficiency of fan-filter units commonly specified for cleanroom and lab applications. LBNL developed a standard test method for testing these units and has completed measurements on 17 different fan-filter models.</p> <p>The information from these two demonstrations will help designers and owners compare the efficiency of various models and will help determine energy baselines for use in utility incentive programs. We will make the results from both demonstrations available to the attendees, and there will be opportunity for discussions with the researchers.</p>										
Audience Level	Designers, engineers, building owners, and building managers are invited to learn two new technologies and strategies for improving energy performance of cleanroom, laboratory, or data center facilities.										
Agenda	<table border="1"> <tr><td>•</td><td>Introductions</td></tr> <tr><td>•</td><td>Update of LBNL Cleanroom Research Activities</td></tr> <tr><td>•</td><td>Report of Demand Controlled Filtration Project--Controlling Cleanroom Airflow Based on Particle Counts</td></tr> <tr><td>•</td><td>Report of Performance Testing of Fan-filter Units</td></tr> <tr><td>•</td><td>Class adjourns</td></tr> </table>	•	Introductions	•	Update of LBNL Cleanroom Research Activities	•	Report of Demand Controlled Filtration Project--Controlling Cleanroom Airflow Based on Particle Counts	•	Report of Performance Testing of Fan-filter Units	•	Class adjourns
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Instructor(s)	<p>David Faulkner, M.S., PE David Faulkner is a Staff Research Associate at the Lawrence Berkeley National Laboratory (LBNL) in the Indoor Environment Department, Environmental Technologies Division. He has been at LBNL for 17 years, conducting research in ventilation technologies in commercial buildings. David holds an M.S. in Mechanical Engineering from the California Institute of Technology and is a licensed Mechanical Engineer in California.</p> <p>Tengfang (Tim) Xu, Ph.D., PE Dr. Tengfang (Tim) Xu, PE, has 18 years of extensive experience in building technologies and energy and environmental management. At Lawrence Berkeley National Laboratory, Dr. Xu is a Program Manager in RD&D projects to quantify energy efficiency and improve building performance in commercial, residential, and industrial buildings, including mission-critical buildings such as cleanrooms and data centers. He has authored and coauthored over 60 papers and reports. He writes the handbook series on cleanroom contamination control and contributes to improvement of Title 24 in California. Serving as the Contamination Control Technical Vice President of IEST, Dr. Xu directs development of publications of numerous industrial standards used in cleanrooms worldwide and is a U.S. delegate to ISO TC209 Cleanrooms and associated controlled environments. Dr. Xu is a recipient of numerous national awards</p>										

	<p>for best papers, publications, and professional services. Relevant to today's presentation, Dr. Xu is the world-leading researcher in developing test methods and formulating an industrial standard to characterize performance of fan-filter units manufactured in Asia, Europe, and North America. In addition, Dr. Xu manages and performs evaluations of energy, airflows, and filtration requirements for cleanrooms and minienvironments. Dr. Xu's interests and accomplishments are exemplified in his producing and disseminating new knowledge and techniques concerning emerging technologies to improve performance of commercial, residential, and high-tech buildings and helping the industries (users, suppliers, and utilities) in complex energy and product management.</p> <p>William (Bill) Tschudi Bill Tschudi is a Principal Investigator for the Applications Team in the Environmental Energy Technologies Division at Lawrence Berkeley National Laboratory. The applications team is tasked with bridging researchers and real world application of emerging technology. Bill currently leads LBNL's data center and cleanroom energy efficiency projects. Bill is a licensed mechanical engineer with over 30 years of experience in design of high tech, mission critical and industrial facilities, and power plants. He is a member of ASHRAE and participates in Technical Committees TC9.11 - Cleanspaces and TC 9.9 that addresses datacom facilities. Prior to joining LBNL, Bill managed multi-disciplined engineering offices for leading firms in the design of cleanroom and data center facilities and was a project manager for cleanroom design projects. His prior experience also includes engineering management for industrial and power projects.</p>
Cost	No fee for this program
Credits	AIA: 0 NCQLP: 0 (Learn more about AIA continuing education and NCQLP .)

Registration Form (* Denotes required fields)

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Your Job Title:	<input type="text"/>
Your Company Name:	<input type="text"/>
Street Address 1:	<input type="text"/>
Street Address 2:	<input type="text"/>
City:	<input type="text"/>
State:	California 
Zip:	<input type="text"/>
Phone*: (area code + number):	<input type="text"/>
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